

BRAKES / FINAL DRIVE

Type H2 Brake Caliper Removal and Repair

Disassembly

Refer to the exploded view while performing steps below. Numbers in parenthesis correspond to callouts on exploded view. **NOTE:** Do not disassemble and further than necessary to make repairs.

CAUTION: Protect eyes from fluid.

1. Disconnect hydraulic lines.
2. Disassemble on a clean bench.
3. Open bleed screw (11) and drain brake fluid from caliper assembly.
4. Remove spring clips (9) holding pad retainer pins (10) and remove pins.
5. Remove two bridge bolts (12).
6. Separate castings (1) and (2).
7. Place caliper with piston down and remove piston (4) from piston casting (1) by applying compressed air to the hydraulic inlet port. **CAUTION:** Do not apply too much air pressure as damage may result to the piston or piston bore.
8. Using a small wooden or plastic stick, work out piston seal (3) from its groove in the piston bore. Discard old seal. **CAUTION:** To avoid scratching piston or burring edge of seal groove, do not use a metal tool such as a screwdriver when removing seal.

Cleaning and Inspecting

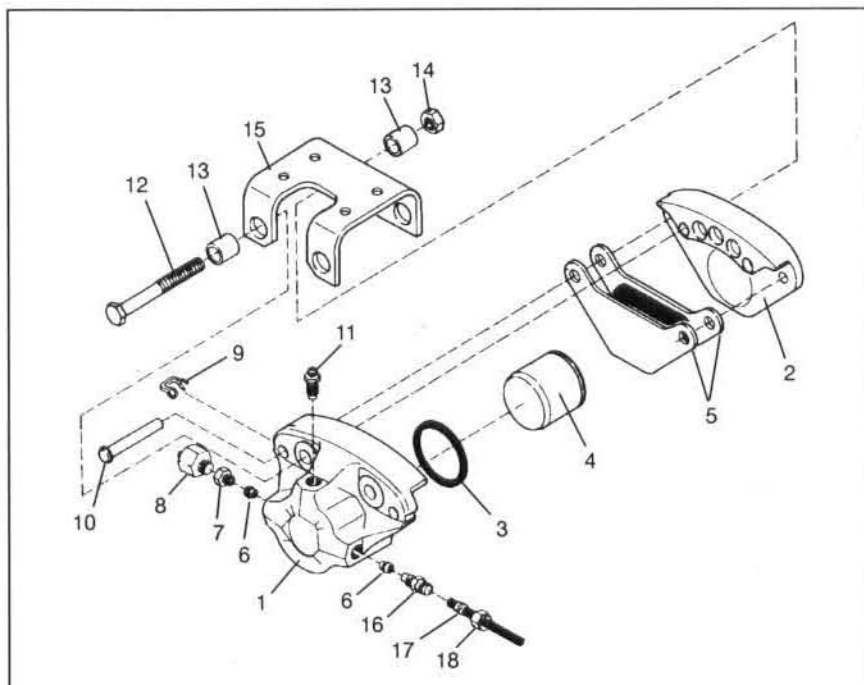
Check all parts for wear or damage and replace as necessary.

1. Clean all parts with denatured alcohol and wipe dry with a clean, lint-free cloth.
2. Using an air hose, blow out the drilled passages and bores.
3. Inspect casting cylinder bore for scoring, pitting, or corrosion. A corroded or deeply scored casting should be replaced; light scores and stains may be removed.
4. Polish any discolored or stained area with *crocus cloth only*. Use finger pressure and rotate the crocus cloth in the cylinder bore. Do not slide the cloth in and out of the bore under pressure. Do not use any other kind of abrasive or abrasive cloth. Black stains on the bore walls are caused by the piston seals and are not harmful.
5. Check piston to see if it is pitted, scored, or worn. If so, discard and replace the piston. Do not attempt to polish or sand piston.
6. Clean piston with denatured alcohol and wipe dry with a clean, lint-free cloth. Blow dry with compressed air.
7. Check inlet and bleeder hole threads for damage.
8. Inspect seat inset (6) for damage and replace if necessary.

BRAKES / FINAL DRIVE

Type H2 Brake Caliper Assembly

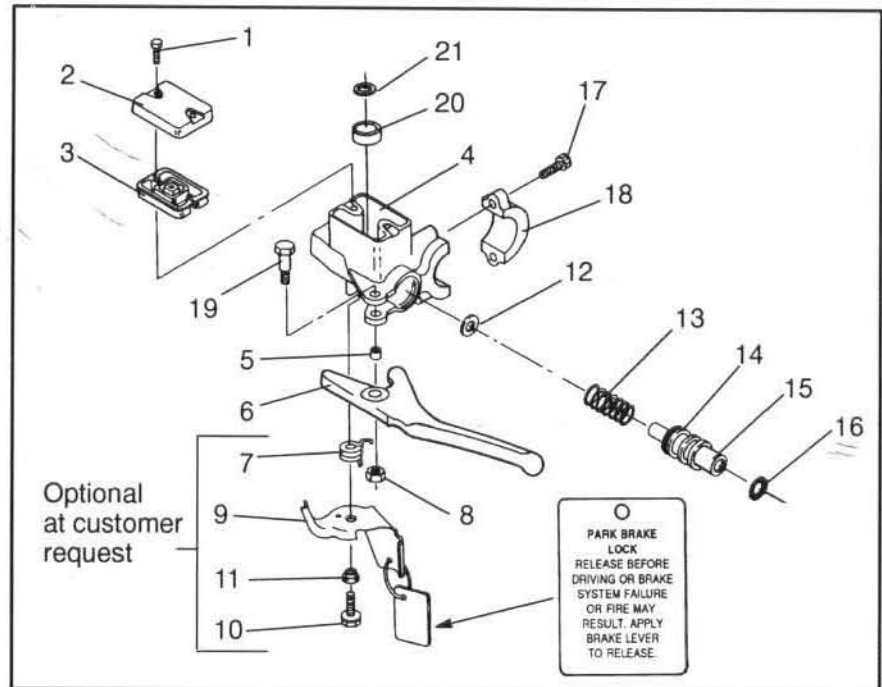
1. Piston Casting
2. Carrier Casting
3. Piston Seal
4. Piston
5. Pad Assembly (2)
6. Seat Insert (2)
7. Brass Adaptor
8. Stop Light Switch
9. Spring Clip (2)
10. Pad Retainer Pin (2)
11. Bleeder Screw
12. Bridge Bolt (2)
13. Spacer Bushing (4)
14. Nut (2)
15. Bracket
16. Male Adaptor
17. Ferrule Fitting
18. Female Connector



1. Reassemble unit by reversing disassembly procedures. Be sure all components are clean and serviceable before reassembling.
2. Dip a new piston seal (3) into clean brake fluid and place in groove in cylinder bore. Seal should be positioned at one point in groove and then gently worked around groove by hand until properly seated. Never use an old seal.
3. Coat piston thoroughly with brake fluid and carefully work piston down the bore until bottomed. **CAUTION:** Apply even force to avoid cocking piston in bore.
4. Examine pads for wear or damage. If pads are worn to less than half the original thickness, install new pad holder assemblies. If pads are not worn or damaged they may be reused. Be sure to reinstall pads in their original positions. If pads are replaced, they must be replaced in sets.
5. Replace pad retainer pin (10) and spring clips (9).
6. Make sure nuts and bolts are clean and dry. Apply Loctite (PN 2870326) to the two caliper carrier bolts and four bracket attaching cap screws. Torque caliper carrier bolts to 30 ft. lbs. (4.14 kg/m). Torque caliper attaching bracket cap screws to 8 ft. lbs. (1.10 kg/m).
7. Purge system of all trapped air.
8. Inspect system for leaks.
9. Check caliper unit mount for free floating action.

BRAKES / FINAL DRIVE Type 3 Master Cylinder Overhaul

1. Cover Screw
2. Cover
3. Cover Gasket
4. Cylinder Housing
5. Brake Lever Bushing
6. Brake Lever
7. Park Lever Return Spring
8. Pivot Bolt Nut
9. Park Lever
10. Park Lever Pivot Bolt
11. Park Lever Pivot Bushing
12. Spring Seat Washer
13. Compression Spring
14. U-Pack Seal
15. Piston
16. O-Ring Seal
17. Clamp Bolt
18. Attaching Clamp
19. Lever Pivot Bolt
20. Baffle
21. Baffle Washer



Park Brake Lever Lock

WARNING: Release park brake lock before driving or brake system failure or fire may result. Apply brake lever to release.

Type 3 - Removal

1. Position clean shop cloths to catch spilled fluid and remove brake hose. **CAUTION:** Brake fluid will damage finished surfaces. Do not allow brake fluid to come in contact with finished surfaces.
2. Remove brake clamp attaching bolts (Item 17).
3. Remove park brake lever (Item 9) and brake master cylinder lever (Item 6), noting position of bushing, spring, etc., for proper reassembly.
4. Using special service tool PN 2870962, position push rod through small hole in spring seat washer (Item 12) as shown. Remove piston assembly, spring and washer.

CAUTION: Whenever inspection reveals worn, damaged or defective parts, replacement is necessary in order to avoid serious damage to the machine or injury to the operator.

Type 3 - Inspection

NOTE: Due to the critical nature of these parts and procedures, be sure you have thoroughly read and understand Hydraulic Brake Operation, page 8.8.

1. Thoroughly clean all brake parts with hot soapy water. Rinse with isopropyl alcohol. Inspect piston for wear or scratches and replace if any are noticed. Check master cylinder bore for scratches or score marks and replace if any are noticed.

